

Empower RF Systems, Inc. Press Materials

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FOR IMMEDIATE RELEASE

90KW C Band, Liquid Cooled Hot Swappable SSPA

Empower's Model 2225 is a long duty cycle pulsed amplifier operating from 5.2 to 5.9GHz and represents our new technologically advanced liquid cooled and scalable architecture. This breakthrough solid state GaN design replaces tube technology to bring new



capabilities to EW, Radar, Directed Energy and Satcom applications where tens and hundreds of kilowatts of CW and Pulse power are required. This new modern architecture offers scalability for affordable upgrade paths to future power needs by adding hardware to an existing system. Additional racks can be combined and for racks not fully populated, 2U amplifier drawers can be added without the need for tuning.

The amplifier system layout consists of a system controller in a 3U and up to 16 <u>hot swappable</u> 2U amplifier drawers with each amplifier drawer containing an integrated power supply in its 2U chassis. This arrangement eliminates the risk of an RF section or single power supply failure taking the entire amplifier offline. In the event of a failure only a fractional reduction of output power is realized and the amplifier system remains on air.

Product Highlights

- Liquid Cooled Scalable Power Architecture
- No Single Point of RF Device Failure
- Distributed Power Supplies
- "On air" Hot Swapping
- Asymmetrical and Random Pulse Width and Duty Cycle Operation
- Only Fractional System Spares Needed for Complete Back up System
 - o Only Spare a Couple of 2U Amplifier Drawers and One Controller
- System will Remain Operational and "On the Air" with Graceful Power
 - o Degradation In the Event of an RF Component Failure or High VSWR Condition
 - Loss of an Amplifier Drawer is Only a Fractional Reduction of Output Power
- Short and Long Pulse Capabilities 100ns up to 500usec
 - 500KHz PRF's and 20% Duty Cycles



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- Full Digital Peak and RMS Detection for Accurate Metering
- No high Voltage Power Supply Anywhere in the Transmitter
- Ethernet Rapid Spanning Tree Architecture for Network Redundancy
- Performance Monitoring and Health Down to the Pallet and Device Level
- Continuous BIT, Down to the Device Level
- Each 2U Amplifier "Building Block" is Digitally Set for Phase and Gain

For technical application questions and to learn more on features that ease integration into your system hardware and software, please email your questions to sales@EmpowerRF.com or call (310) 412-8100 and press 2 for sales.

Learn More About This Product:

https://www.empowerrf.com/products/display amplifier.php?sku=2225

Complete Empower RF Amplifiers lineup:

http://www.empowerrf.com/products/rf power amplifier.php

Empower RF Systems is the technology leader in high power amplifier solutions for reliable communications, defense, and industrial applications. Our products incorporate the latest semiconductor and power combining technologies and originate from an extensive library of "building block" designs. Solutions range from basic modules to multifunction PA assemblies with embedded real time microprocessor control.

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